

## THERAPEUTICS

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UNDER THE CHARGE OF

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**The Tonsillar Route of Infection in Pulmonary Tuberculosis.**—ZWALUWENBURG and GRABFIELD (*Am. Rev. Tuberc.*, 1921, v, 57) have described a shadow which they believe represents a thickening of the pleura over the apex of the lung, and they have studied its relationship to tonsillar and cervical gland tuberculosis. They state that such apical pleuritis was seen in 10 per cent of the roentgen-ray examinations made. Such apical pleuritis occurs most frequently in cases showing tuberculosis deposits in the faucial tonsils (93 per cent). With cervical gland tuberculosis this lesion is recognizable in 59 per cent of all cases and probably occurs in a larger number, being obscured by the shadows of pulmonary tuberculosis, 71 per cent in this group showing either this lesion or frank tuberculosis of the lung or both. Cases without tuberculosis of the tonsil show an apical pleuritis in only 11 per cent of the cases. It is suggested that a common route of infection may lie through the tonsil and cervical lymphatics to the apical pleura and thence into the lung. If this hypothesis is accepted it offers a singularly satisfactory explanation for the frequency of apical lesions, the predominance of right-sided lesions, of the pathogenesis of tuberculous pleurisy with effusion and other obscure features of this infection.

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**An Output Study of Users and Non-users of Tobacco in a Strenuous Physical Occupation.**—BAUMBERGER, PERRY and MARTIN (*Jour. Indust. Hyg.*, 1921, iii, 1) present their second paper in a series of articles on the significance of the use of tobacco in industry, namely, the relation of the use of tobacco to efficiency in a strenuous physical occupation. They adopted output as the criterion of efficiency, and chose the bottle-making industry for their studies. They conclude that smoking has little effect on output rate in the strenuous physical occupation studied. Chewing markedly lowers output rate. Light smokers have a slightly lower output rate than heavy smokers.

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**A Survey of Carbon Monoxide Poisoning in American Steel Works, Metal Mines and Coal Mines.**—FORBES (*Jour. Indust. Hyg.*, 1921, iii, 11) states that carbon monoxide, as met with in metal and coal mines and about blast furnaces in this country, rarely causes late after-effects following acute severe gassing. When such effects do appear, there is evidence, almost always, of a preëxisting pathological

condition. Frequent exposure to carbon monoxide causes headache and malaise, but no evidence has been found of a cumulative harmful effect. As was to be expected, owing to the compensating increase of hemoglobin and red cells from prolonged oxygen want, it is possible to acquire some tolerance to carbon monoxide. A recent advance in treatment has been made by adding carbon dioxide to the oxygen inhalations administered. Recovery is three times as rapid as when oxygen alone is used. An efficient portable carbon monoxide respirator has been perfected by the U. S. Government.

**Superinfection in Experimental Syphilis Following the Administration of Subcurative Doses of Arsphenamine or Neoarsphenamine.**—BROWN and PEARCE (*Jour. Exp. Med.*, 1921, xxxiii, 553) conclude that the existence of an infection with *Spirocheta pallida* does not constitute a bar in itself to the introduction and propagation of a second infection in the same animal; that, just as there is a period following a first inoculation during which a second infection may be implanted with the production of characteristic primary lesions, conditions may again arise in animals which have once become refractory to a second inoculation that will favor the introduction of a new infection with the formation of lesions presenting the characteristics of an original or first infection. Experimentally, such a state may be induced in rabbits with early but well-marked primary lesions of the testicles by treatment with either arsphenamine or neoarsphenamine; hence, treated but uncured animals may be rendered as susceptible to a second cutaneous inoculation as a normal animal, and the manifestations of disease resulting from the second infection may be indistinguishable from those of a first infection. The results obtained showed: (1) That the treatment employed was insufficient to cure any of the therapeutic controls; (2) that the infected controls were highly refractory to a second inoculation; (3) that the treated animals were highly susceptible to a second inoculation, and although not cured of their original infection, reacted to the second inoculation with the formation of lesions indistinguishable from those of a first infection; (4) that in certain instances the treatment given had rendered infected animals more susceptible to infection than the normal controls.

**Treatment of Epilepsy.**—E. CHRISTIN (*Schweiz. med. Wchnschr.*, February 3, 1921) writes that bromide medication is not wholly satisfactory in the treatment of epilepsy. The sodium salt should be employed to avoid the depressant action of potassium on the heart. Bromides may be given in smaller doses if the amount of chlorides in the diet is reduced as much as possible. The employment of the stimulating ammonium salt is considered irrational. Luminal is considered more favorably. It differs from veronal only in the substitution of a phenyl radical for an ethyl group, whereby it is asserted that the sedative effect is greatly increased. The daily dose consists of 2 grains, in cachets. For hypodermic administration, the soluble sodium derivative should be used. Luminal exerts its sedative action without unpleasant side-effects. A large number of observers recommend its use in rapidly recurring